

ACC NR: AP6037090

tions of the self consistent field method, is developed. The damping of the excitations is determined with the aid of this method. It is found that very close to the critical frequency the damping is comparable to the frequency, so that the concept of vibrations loses its meaning. The critical vibrations are thus described in the entire region of their existence in the self-consistent field approximation. The applicability of the results to real systems is discussed, and an extension to first-order transitions is considered. Orig. art. has: 3 figures and 55 formulas.

SUB CODE: 20/ SUBM DATE: 22Jun66/ ORIG REF: 019/ OTH REF: 004

Card 2/2

S/194/61/000/012/041/097
D256/D303

AUTHOR: Yaks, Ye. Ya.

TITLE: Investigating wire converter transducers for thread tension measurements

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 26, abstract 12V221 (Nauchno-issled.tr. Tsentr. n.-i. in-t sherst. prom-sti, 1959, no. 14, 137-151)

TEXT: A transducer was devised for measuring the tension of threads and comprising an elastic element with two wire converters fastened to the opposite surfaces of the element. In order to attain indications free of distortions the self-frequency of the transducer should exceed 5 to 10 times the highest frequency of the indicated process, but on the other hand the sensitivity of a transducer is inversely proportional to the square of the self-frequency. A discussion is given of the elements optimum size, configuration and the materials used in terms of calculations and expe-

Card 1/2

Investigating wire converter ...

S/194/61/000/012/041/097
D256/D303

rimental data, and it was found that best dynamic properties have elements made of "electron" magnesium alloy shaped as equal resistance triangles of double T cross-section rods. The calculations showed that it should be possible to devise a transducer measuring system 237 times more sensitive than the usual ones. The possible construction variants are given together with recommendations concerning the used materials for various transducer self-frequencies. There are 13 figures and 10 references. /-Abstractor's note: Complete translation._/ ✓

Card 2/2

VAKS, Ye.E., inzh.; Prinsipali uchastiye; ALESHIN, P.A., kand. tekhn. nauk;
BELYAYEV, N.N., inzh.

Development and investigation of the thread regulator.
Nauch.-issl. trudy TSNIIShersti no.16:54-58 '61. (MIRA 16:11)

VAKS, Ye.E., inzh.

Analysis of errors in the measurement of the thread tension
and some ways to reduce them. Nauch.-issl.trudy TENIIShersti
no.16:58-72 '61. (MIRA 16:11)

AUTHOR: Vaksberg, A., Candidate of Juridical Sciences 4-58-6-25/37
TITLE: Criminals Will Be Found (Prestupnik budet nayden)
PERIODICAL: Znaniye - sila, 1958, Nr 6, pp 38-42 (USSR)
ABSTRACT: The article contains some examples illustrating the technical skill and professional intelligence of the Soviet criminal police. There are 4 drawings.
1. Police--USSR

Card 1/1

VAKSBERG, Arkadiy, kand,yurid.nauk

Those who crawl out of the darkness... Zdorov's 5 no.3:28-29
Mr '59. (MIRA 12:3)

(Sects)

VAKSBERG, Arkadiy

I learned to love this country. Znan. sila 38 no.9:14-17 S '63.
(MIRA 16:12)

VAKSBERG, Arkadii

On the threshold of a big discovery. Nauka i tekhnolozhiya 16
no. 7/8: 64-68 JI-Ag '64

VAKSBERG, Ark.

Controversy on a celestial newcomer. Nauka i tekhn. mladezh
16 no.11:7-10 '64.

001858410020-2
VAKSBERG, G.M.

~~Eliminating~~ the Shvartzman phenomenon by urethane anesthesia.
Medych.zhur. 21 no.6:109-112 '51. (MIRA 11:1)

1. Z kafedri patologichnoi fiziologii (zav. - prof. R.A.Dimshits')
Chelyabins'kogo medichnogo institutu (direktor - prof. G.D.Obratsov)
(HEMORRHAGE) (URETHANE)

VAKSBERG, G. M.

~~VAKSBERG, G. M.~~

"Methods of Desensitizing an Organism to Hyperergic Inflammation (Schwartzmann Phenomenon)." Card Med Sci, Molotov Medical Inst, Molotov, 1953. (RZhBiol, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

VAKSBERG, G. M.

USSR.

The role of leucocytes in the origin of proteolytic exudative enzymes. G. M. Vaksberg and Z. I. Kalnykova (Med. Inst., Chelyabinsk). *Arkh. Patol.* 17, No. 2, 70 (1955).—A study was made of the functional stimulation by leucocytes, in the process of phagocytosis of heterogeneous erythrocytes, of the proteolytic enzymes of exudates and of blood plasma. The modified-casein digestion method of Gross was used in detg. proteolytic activity of exudates and of plasma. Casein (0.01-0.02% soln.), undigested, was pptd. by pH 4.7 acetate buffer; such procedure pptd. the undigested casein, but not the proteins of either plasma or exudates. The proteolytic enzyme activity of plasma and exudates is considerably enhanced during the process of phagocytosis of heterogeneous erythrocytes in proportion to the increase in the no. of living leucocytes. During the beginning stages of inflammatory processes in which the leucocytes retain normal functional activity and staining properties, the proteolytic activity of the exudates quadrupled; during late stages of inflammation the rise is only slight. Spontaneous autolysis or lysis of leucocytes in vitro by freezing or other means has no effect on proteolytic activity of the exudates. It is concluded that increase in proteolytic activity of exudates is due to the stimulating effect of heterogeneous erythrocyte phagocytosis on the functional activity of living leucocytes only. B. S. Levin

VAKSBERG, G.M.

Role of vascular receptors in the formation of immune antibodies.
Zhur. mikrobiol. epid i immun. 31 no.6:115-116 Je '60. (MIRA 13:8)

1. Iz Chelyabinskogo meditsinskogo instituta.
(ANTIGENS AND ANTIBODIES) (RECEPTORS (NEUROLOGY))-

VAKSBERG, G.M., kand. med. nauk (Chelyabinsk)

Effect of acute hemorrhage on the functional activity of the thyroid gland. Probl. endok. i gorm. 9 no.6:38-41 N-D '63. (MIRA 17:11)

1. Iz kafedry patofiziologii (zav. - prof. R.A. Dymshits) Chelyabinskogo meditsinskogo instituta (dir. - dotsent P.M. Tarasov).

VAKSBERG, G.M.

Protective role of cytotoxins in experimental uranium nephritis in rats. Pat.fiziol.i eksp.terap. 9 no.4:27-31 J1-Ag '65. (MIRA 18:9)

1. Kafedra patologicheskoy fiziologii (zav. - prof. R.A.Dymshits)
Chelyabinskogo meditsinskogo instituta.

BERGMAN, A. G.; VANSBERG, N. E.

Systems (Chemistry)

Solid solutions and formation of complexes in a reciprocal system of nitrates and chromates of potassium and sodium, Izv. Sekt. fiz. -khim. anal. 16, No. 3, 1948.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

VAKSEL', S.V.

The Second Kamehateka Expedition of Vitusa-
Bering, Leningrad-Moscow, 1940.

Three Dimensional Vector of an Analytical Function ¹⁶

Vokselj, Anton, Vektordreibein einer analytischen Funktion. Glasnik Mat.-Fiz. Astr. Društvo Mat. Fiz. Hrvatske Ser. II. 12 (1957), 171-180. (Serbo-Croatian summary)

2
1-FIW

Let $T=f(Z)$ be an analytic function and z be a point where $f'(z) \neq 0$. We can determine uniquely the linear transformation $(aZ+b)/(cZ+d)$ such that

$$f(Z) - \frac{aZ+b}{cZ+d} = O((Z-z)^2)$$

and $ad-bc=1$. The author regards it as an analogue of the tangent of a real curve $y=f(x)$.

In this way the author introduces counterparts of elementary geometric quantities, such as circles of curvature, arc length, etc., for analytic functions.

K. Oikawa (Los Angeles, Calif.)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858410020-2

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858410020-2"

YUGOSLAVIA/Nuclear Physics - Penetration of Charged Neutral
Particles Through Matter.

C

Abs Jour : Ref Zhur Fizika, No 2, 1960, 3066

Author : Vakselj, M., Bezic, N.

Inst : -

Title : Energy-Angle Distribution of Bremsstrahlung Spectrum

Orig Pub : Repts "J. Stefan" Inst., 1958, 5, 9-11

Abstract : The differential cross section of bremsstrahlung, after Bethe and Heitler, was integrated over the electron recoil angles in order to obtain the energy-angle distribution of the bremsstrahlung gamma quanta. For this purpose, the field of the atom is represented in a form which is an analytical approximation of the Hartree-Fock method, which gives a better agreement than the Thomas-Fermi model, particularly at small values of the function q .

Card 1/1

VAKSEL'MAN, O. G.

AID P - 2422

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 21/33

Author : Vaksel'man, O. G.

Title : Answer to T. P. Musatov's article "On grounding wire
of a 110-kv two-circuit transmission line"

Periodical : Elek sta 5, 53-54, My 1955

Abstract : The author refers to the article published in the No 4,
1954 issue of this journal on the erection of the second
parallel 110-kv transmission line without grounding wires.
In the critic's opinion these lines should be equipped
with grounding for several reasons discussed in the
article.

Institution: None

Submitted : No date

VAKSENBURG, VYa.

PHASE I BOOK EXPLOITATION

1185

p r
Poluprovodnikovyye pribory i ikh primeneniye; sbornik statey, vyp. II (Semiconductor Devices and Their Uses; Collection of Articles, no. 2) Moscow, Izd-vo "Sovetskoye radio," 1957. 398 p. No. of copies printed not given.

Ed. (title page): Fedotov, Yakov Andreyevich; Ed. (inside book): Ivanushko, N.D.; Tech. Ed.: Sveshnikov, A.A.

PURPOSE: This book is addressed to physicists and electronics engineers interested in semiconductor devices and their applications in electronics.

COVERAGE: This is a collection of articles on semiconductor devices and their applications. There is an insert containing a circuit diagram of the measuring instrument described in the article on p. 331. No personalities are mentioned. There are 84 references, of which 33 are Soviet (including 3 translations), 1 Swiss, 6 German, 42 English, and 2 French.

Card 1/5

Semiconductor Devices and Their Uses (Cont.) 1185

TABLE OF CONTENTS:

Shmartsev, Yu.V. Producing Germanium for Semiconductor Devices	3
Artyukhova, O.A., <u>Vaksenburg, V.Ya.</u> , Petrov, L.A., Saltykova, Ye.S., and Samokhvalov, M.M. New Types of Germanium P-n-P Junction Transistors	46
Kamenetskiy, Yu.A. Equivalent Circuits of Transistors	78
Kozlov, V.A. Obtaining a Family of Volt-Ampere Characteristics for Transistors on an Oscilloscope Screen	142
Petrov, L.A., and Syttyy, G.F. Variations in the Parameters of P-n-P Alloy-type Germanium Transistors as a Function of the Material and Quiescent Point	149

Card 2/5

Semiconductor Devices and Their Uses (Cont.)	1185
Petrov, L.A., and Sytyy, G.F. Effect of Resistivity of Germanium on the Temperature Dependence of Parameters of Junction Transistors	161
Borisov, A.I. Ambient Temperature Dependence of Static Volt-Ampere Characteristics of Junction Transistors	169
Popov, I.A. Transient Processes in Junction Transistors During Application of Step Voltages	187
Zakharov, V.N. Methods of Determining Maximum Power Amplification Frequency and Maximum Generated Frequency of Transistors	205
Sherov-Ignatyev, G.P. Selecting Conditions of Power Supply for Type SLD Transistors Used for Amplification of Small Signals	223
Vorob'yeva, Ye.F. Input Impedance of a Point-contact Transistor HF Amplifier With Grounded Base And Detuned Output Circuit	242

Card 3/5

Semiconductor Devices and Their Uses (Cont.)	1185
Garyainov, S.A., and Pripolov, E.Ya. Investigation of a Point-contact Transistor Video Amplifier	263
Kobzev, V.V., and Berestnev, P.D. Problem of Designing High-frequency Self-excited Oscillators Equipped With Junction Transistors	288
Tarasov, V.L., and Shevyrtalov, Yu.B. Investigation of Transistor Detectors	298
Konev, Yu.I. Phase-sensitive Transistor Amplifiers	317
Kopylovskiy, B.D., and Sytyy, G. F. Measurement of Modulus and Phase of Current Amplification Factor in Transistors at High Frequency	331
Gal'perin, Ye.I., Gordonov, A.Yu., and Fomchenkov, V.M. Design of Point-contact Transistor Trigger Circuits Ensuring Interchangeability	340
Card 4/5	

Semiconductor Devices and Their Uses (Cont.)	1185
Zalkind, A.B., Matyukhin, N.Ya., and Rosnitskiy, O.V. Current Pulse Switching With Transistors	353
Valitov, R.A., Aleksandrov, A.I., and Akulov, I.I. Transistorized Measuring Instruments	366
Selivanov, S.A., and Selivanov, A.S. Transistorized Radiomega-phone	377
Valitov, R.A., and Simonov, Yu.L. Frequency Stabilization of Transistorized Oscillators With the Aid of Ticon[trade name] and Varicond[barium titanate] Capacitors	383
Voinov, B.S. Miniature Wide--band Tank Circuit	386

AVAILABLE: Library of Congress

JP/mfd
2-12-59

Card 5/5

ARTYUKHOVA, O.A.; VAKSENBURG, V.Ya.; PETROV, L.A.; SALTYSKOVA, Ye.S.;
SAMOKHVALOV, M.M.

New types of germanium p-n-p junction triodes. Poluprov. prib. 1
ikh prim. no.2:46-77 '57. (MIRA 11:6)
(Transistors)

YAKSENBURG, V. YA

PHASE I BOOK EXPLOITATION

BOV/4677

Poluprovodnikovyye pribory i ikh primeneniye; sbornik statey, vyp. 5
(Semiconductor Devices and Their Application; Collection of Articles, No. 5)
Moscow, Izd-vo "Sovetskoye radio," 1960. 270 p. No. of copies printed not
given.

Ed. (Title page): Ya. A. Fedotov; Ed. (Inside book): I. M. Volkova; Tech. Ed.:
A. A. Sveshnikov; Editorial Board: Ya. A. Fedotov (Resp. Ed.), N. A. Barkanov,
I. G. Bergel'son, A. M. Broyde, Ye. I. Gal'perin (Deputy Resp. Ed.), Yu. A.
Kamenetskiy, Yu. I. Konev, A. V. Krasilov, A. A. Kulikovskiy, I. F. Nikolay-
evskiy, and I. P. Stepanenko.

PURPOSE: This collection of articles is intended for specialists working in the
field of semiconductor devices.

COVERAGE: The articles discuss basic transistor parameters, methods of measuring
them, and some problems in the use of transistor circuit diagrams. Two of the
articles describe the use of semiconductor diodes for parametric amplification.
No personalities are mentioned. References accompany 11 of the 12 articles.

TABLE OF CONTENTS:

~~Card 1/5~~

Semiconductor Devices and Their Application (Con't) SOV/4677

Pertsov, S. V., Parametric Amplifiers with Semiconductor Diodes	3
Aronov, V.L., Nonlinear Capacitance of a Semiconductor Diode as a Component of a Parametric Amplifier	41
Vaksenburg, V. Ya., M. A. Pashkevich, and Yu. S. Tikhodeyev. High-Frequency Drift Transistor With Stepped-Up Breakdown Voltage on the Emitter	61
Samokhvalov, M. M., and Yu. S. Tikhodeyev. Temperature Dependence of Some Frequency Parameters in Drift Transistors	83
Shestakov, I. A. (deceased) Calculation of Maximum Permissible Pulse Power. for Semiconductor Devices in Their Work Under Pulse Overload Conditions	93
Potryasay, V. F., A. S. Ryzhov, and V. Ya. Satyagin. Transistor Noise	107
Kamenetskiy, Yu.A., and A. P. Shibanov. Measurement of Transistor Parameters Within the Ultrashortwave Range	159

~~Car 2/3~~

94310

S/194/61/000/006/039/077
D201/D302

AUTHORS:

Vaksenburg, V.Ya., Pashkevich, M.A. and Tikhodeyev,
Yu.S.

TITLE:

A high frequency drift transistor with increased
breakdown emitter voltage

PERIODICAL:

Referativnyy zhurnal. Avtomatika i radioclektronika,
no. 6, 1961, 15, abstract 6 D91 (V sb. Poluprovodnik.
pribory i ikh primeneniye, no. 5, M., Sov. radio,
1960, 61-82)

TEXT: Problems are considered of the design of a germanium transistor for frequencies > 100 mc/s, analogous to types П401-П403 (P401-P403), but differing by a larger value of permissible voltage at the emitter-base junction. (5-10 V as compared with 1-2 V for P401-P403). Analytical relations are derived from the strict theory of drift junction transistors; these relations permit the evaluation of the optimal diffusion process for obtaining a junction transistor ✓_B

Card 1/2

A high frequency drift transistor...

S/194/61/000/006/039/077
D201/D302

with the required parameters. The calculated values are in good agreement with experimental data. The problems are considered in choosing the emitter alloy and in determining ways of obtaining lower base resistance. [Abstracter's note: Complete translation]

VB

Card 2/2

L 39637-66 EWT(m)/ENP(t)/ETI IJ(c) JD/GD-2

ACC NR: AP6002886

SOURCE CODE: UR/0286/65/000/024/0044/0044

AUTHOR: Vaksenburg, V. Ya.

ORG: none

TITLE: Electrode alloy for alloy-diffused triodes. Class 21,
no. 176985

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no.24, 1965, 44

TOPIC TAGS: triode tube, germanium base alloy, electrode, solubility,
distribution coefficient, alloy

ABSTRACT: The electrode alloy for alloy-diffused triodes, the germanium base alloy of an emitter for example, simultaneously containing acceptor and donor impurities, is characterized by the fact that an acceptor impurity whose maximal solubility exceeds that of the donor solubility in solid germanium is injected into it in such quantities that the product of the coefficient of acceptor impurity distribution in germanium per acceptor impurity concentration in electrode alloy exceeds the maximal solubility of the donor impurity in germanium. This is done in order to prevent the formation of parasitic p-n junctions in the emitter region. The alloy, is characterized by the fact that an acceptor impurity whose maximal

Card 1/2

L 39637-66

ACC NR: AP6002986

solubility is equal or lower than the solubility of the donor impurity in solid germanium is injected into it in such quantities that the product of the coefficient of acceptor impurity distribution per acceptor impurity concentration in the alloy is not smaller than its maximal solubility in solid germanium, and a donor impurity is injected into it in such quantities that the product of the coefficient of donor distribution per donor concentration in the electrode alloy does not exceed the maximal solubility of the acceptor impurity in solid germanium. ✓

SUB CODE: 09,11/ SUBM DATE: 20Jan64

Card 2/2MLP

ACC NR: AR6032145

SOURCE CODE: UR/0169/66/000/006/B016/B016

AUTHOR: Bekryayev, V. I.; Vaksenburg, Z. B.; Mushenko, P. M.

TITLE: Air-pollution study in the region of the Baltic GRES (State Regional Power Plant)

SOURCE: Ref. zh. Geofizika, Abs. 6B126

REF SOURCE: Sb. rabot Tallinsk. gidrometeorol. observ., vyp. 3, 1965, 47-49

TOPIC TAGS: atmospheric admixture, sulfur dioxide, air pollution, *ATMOSPHERIC CONTAMINATION, SULFUR COMPOUND*

ABSTRACT: Some theoretical schemes for computing the expansion of atmospheric impurities are analyzed on the basis of observation data of the contents of sulphur dioxide and dust in the atmosphere.

SUB CODE: 04/ SUBM DATE: none/

Card 1/1

UDC: 551.510.42

VAKSER, B.D., inzh. (Leningrad); GUREVICH, Z.M., inzh. (Leningrad)

Prebreakdown phenomenon in the insulation of high-voltage electric
machinery. Elektrichestvo no.9:70-73 S '61. (MIRA 14:9)
(Electric machinery) (Electric insulators and insulation)

VAKSER, D.E.

SHEYDER, Yuriy Grigor'yevich, kandidat tekhnicheskikh nauk, dotsent; VAKSER, D.E., dotsent, redaktor; KAPLANSKIY, Ye.F., redaktor; POL'SKIYA, R.G., tekhnicheskii redaktor.

[Cold working of precision parts by pressure] Kholodnaya obrabotka tochnykh detalей davleniem. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 190 p. (Metals--Cold working) (MLRA 3:5)

VAKSER, D.B.

MALKIN, Boris Moiseyevich; VAKSER, D.B., dotsent, retsenzents; LOMACHENKOV,
S.Ye., inzh., red.; LEYKINA, G.L., red.; SOKOLOVA, L.V., tekhn.red.

[Jig grinding machines and attachments] Stanki i prisposobleniia
dlia koordinatnogo shlifovaniia. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit. lit-ry, 1957. 241 p. (MIRA 11:1)
(Grinding machines)

VAKSER, D.B.

ANSKROV, Mikhail Alekseyevich; VAKSER, D.B., dotsent, red.; CHFAS, M.A., red.;
POL'SKAYA, R.G., tekhn.red.

[Attachments for lathes] Prispособleniia dlia tokarnykh stankov.
Izd.2-oe, dop.1 perer. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1957. 124 p. (Bibliotekhka tokaria-novatora, no.4)
(MIRA 11:1)

(Lathes--Attachments)

SHNEIDER, Yuriy Grigor'yevich, kand.tekhn.nauk; VAKSER, D.B., dotsent,
red.; FREGER, D.P., tekhn.red.

[Machine finishing of metals by plastic deformation; review]
Chistovaia obrabotka metallov platicheskim deformirovaniem;
obzor. Leningrad, Leningr.dom nauchno-tekhn.propagandy, 1958.
76 p. (MIRA 12:8)

(Metals--Finishing)

VAKSER, D. B.
ANSEROV, Mikhail Alekseyevich; VELIKANOV, Karp Mironovich; OZERKOVICH,
Mikhail Israilevich; ANSEROV, M.A., kand.tekhn.nauk, dotsent,
red.; VAKSER, D.B., dotsent, retsenzents; BORODULINA, I.A., red.
izd-va; POL'SKAYA, R.G., tekhn.red.

[Increasing labor productivity and lowering production costs in
lathe work] Povyshanie proizvoditel'nosti truda i snizhenie
zatrat pri tokarnoi obrabotke. Pod obshchei red. M.A. Anserova.
Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958.
93 p. (Bibliotekha tokaria-novatora, no.1) (MIRA 12:1)
(Labor productivity) (Turning)

KHOLZUNOV, Aleksandr Grigor'yevich; VAKSER, D.B., dotsent, retsenzent;
MIRKIN, M.S., inzh., red.; LEYKINA, T.L., red.izd-va; SPERANSKAYA,
O.V., tekhn.red.

[Principles of the analysis of pneumatic drives] Osnovy rascheta
pnevmaticheskikh privodov. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry, 1959. 161 p. (MIRA 12:3)
(Machinery--Pneumatic driving)

VAKSER D. B.

SHNEYDER, Yuriy Grigor'yevich, kand.tekhn.nauk; NIKITIN, Ye.N., inzh.,
retsensent; VAKSER, D.B., dotsent, red.; VARKOVETSKAYA, A.I.,
red.izd-va; FRUMKIN, P.S., tekhn.red.

[Cold press working of precision parts without use of dies]
Kholodnaya besstampovaya obrabotka tochnykh detalei davleniem.
Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashino-
stroit.lit-ry, 1960. 309 p. (MIRA 13:3)
(Sheet-metal work)

VAKSER

D. B.

P. 2

PHASE I RE EXPLOITATION

80V/3918

Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya

Osnovnyye voprosy vysokoproizvoditel'nogo shlifovaniya (Basic Problems in High-Productivity Grinding) Moscow, Mashgiz, 1960. 195 p. 3,000 copies printed.

Ed. (title page): Ye. N. Maslov, Doctor of Technical Sciences, Professor;
Ed. (inside book): A. T. Popov, Engineer; Tech. Ed.: V. D. El'kind;
Managing Ed. for Literature on Metalworking and Instrument Construction (Mashgiz): V. V. Rzhavinskiy, Engineer.

PURPOSE: This book is intended for technical personnel in metal grinding.

COVERAGE: This collection of articles deals with problems of efficient grinding of metals, the theory of grinding, the mechanism of the cutting action of grains, chip formation, and the effect of certain factors on the productivity of the grinding process. Emphasis is also given to the automation of the grinding process. A number of articles deal with the grinding of carbides and titanium alloys. No personalities are mentioned. References follow each article.

Card 1/6

Basic Problems (Cont.)

80V/3918

TABLE OF CONTENTS:

From the Editor	3
Maslov, Ye. N. [Doctor of Technical Sciences, Professor]. Mechanism of the Cutting Action of Abrasive Grains in Grinding	5
The author discusses arrangement, spacing, dimensions, and geometry of abrasive grains. The theory of the process of chip formation and the thickness of the layer removed by a single grain are also discussed.	
Popov, S. A. [Candidate of Technical Sciences]. Analysis of Types of Chip Formation in Connection With the Geometry of the Grinding-Wheel Surface	30
Nikol'skiy, A. V. [Candidate of Technical Sciences]. Effect of Various Factors on Productivity in Cylindrical Grinding	59
The author describes a method for determining optimum feeding rate, unit pressure between work and wheel, and the cutting depth of single grains necessary for the maximum utilization of grinding wheels.	
<u>Vakser, D. B. [Docent]. Effect of the Geometry of an Abrasive Grain on the Properties of the Grinding Wheel</u>	78
Card 2/6	

Basic Problems (Cont.)

SOV/3918

The author discusses the relationships between the radii of curvature and the angles of peaks and valleys of abrasive grains. Grain forms were drawn in two projections by means of an RA-4 drawing apparatus built into the system of an ordinary biological microscope. Magnification of the microscope was adjusted to the grit size.

Lur'ye, G. B. [Professor]. The Theory of the Working Cycle in Cylindrical Grinding as a Basis of High-Productivity Machining 87

The article is a study of the grinding operation and its regularities. Among the topics discussed are effect of processing factors on the quality of grinding, changes in cutting action of a grinding wheel over the wheel life and during operation, and the effect of wheel wear on productivity.

Zheleznyy, Ye. S. Principles of High-Productivity Grinding and Its Automation 109

The article deals with the principles of planning high-productivity grinding and the incorporation of a system of automation into grinding operations. Both subjects are discussed in connection with the reduction of cutting time, the achievement of process stability, and the

Card 3/6

Basic Problems (Cont.)

SOV/3918

improvement of the quality of the product.

Kondrat'yev, A. B. [Candidate of Technical Sciences, Docent]. Results of Investigation and Experience of Introducing High-Speed Grinding of Metals

121

The investigation of high-speed grinding with porous grinding wheels is discussed. Advantages, wheel life, and surface roughness of this type of grinding operation are included. The author recommends the accelerated construction of grinders and wheels for speeds of 80-90 m/sec.

Kedrov, S. M. [Candidate of Technical Sciences]. Results of an Investigation of Centerless Grinding With Wide Grinding Wheels

131

The author discusses the possibilities and advantages of introducing centerless grinding with wide (800-900 mm) wheels into mass production. The results of experimental operations with this type of wheel at the LGPZ Plant are presented.

Sagalov, V. I. [Candidate of Technical Sciences]. Characteristic Features of the Process of Grinding Carbides

144

Such characteristic features of the grinding of carbides as the use of silicates-bonded wheels, the formation of powdered waste instead of

Card 4/6

Basic Problems (Cont.)

SOV, 1918

chips, and the occurrence of intensive oxidation are discussed. The relationships between temperature during grinding, pressure between wheel and work, speed, and productivity are outlined. The author suggests increasing productivity through higher speeds and more intensive oxidation.

Sil'vestrov, V. D. [Candidate of Technical Sciences] Characteristic Features of the Grinding of Titanium Alloys

153

The author indicates the basic cause of low productivity in the grinding of titanium alloys. He attributes low productivity to the chemical affinity of titanium alloys to the materials of the grinding wheel and the resulting excessive wear of the wheel. To increase productivity [20-25 times], he recommends the use of special grinding coolants. The compositions of the coolants proposed are presented.

Bagdasaryan Zh. A. [Candidate of Technical Sciences]. Cutting Action of Grinding Wheels and [Mechanical] Work in Grinding

161

The results of experimental work by the author are presented. The work is based on a study of metal and abrasive waste products in grinding. The effect of truing and dressing on wheel wear is determined, and the coefficient ϵ is derived. This coefficient characterizes the reduction of average grain dimensions in waste as

Card 5/6

Basic Problems (Cont.)

SOV/3918

compared with original grain dimensions. An analysis of mechanical work (force \times relative displacement of work and wheel surface) during grinding is also presented.

Chestnov, A. L. [Candidate of Technical Sciences]. Finishing of Sliding Surfaces

171

The author discusses the regularities of the microfinishing process, a microfinishing attachment for a lathe, and the effect of finishing of a journal on the wear of the bushing.

Makhkamov, R. G. Some Problems of Flexible Grinding and Buffing With Felt Wheels

189

The author describes an experimental investigation of flexible grinding with felt wheels with bonded abrasive powder. The composition of a paste for buffing is also described (73% chromium oxide, 23% stearin, and 4% oleic acid).

AVAILABLE: Library of Congress

Card 6/6

VK/pw/ec
8-26-60

GLYASS, Vyacheslav Danilovich; SHITOV, G.A., inzh., retsenzent; KUDASOV,
G.F., kand.tekhn.nauk, red.; VAKSER, D.B., dotsent, red.;
LEYKINA, T.L., red.izd-va; KONTOROVICH, A.I., tekhn.red.

[Screw-thread grinding] Res'boshlifovanie. Pod obshchei red. G.F.
Kudasova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,
1960. 62 p. (Bibliotekha shlifovshchika, no.7).
(Screw cutting) (MIRA 13:7)

MUTSYANKO, Vitya Iosifovich; RAYKHENSHTEYN, I.S., inzh., ratsenzent;
KUDASOV, G.F., kand.tekhn.nauk, red.; VAKSER, D.B., dotsent,
red.; LEYKINA, T.L., red.izd-va; KONTOROVICH, A.I., tekhn.red.

[Centerless grinding] Bestsentrovoye shlifovanie. Pod obshchey
red. G.F.Kudasova. Moskva, Gos.nauchno-tekhn.izd-vo mashino-
stroitel.lit-ry, 1960. 78 p. (Bibliotekha shlifovshchika, no.4)
(MIRA 13:11)

(Grinding and polishing)

MALKIN, B.M.; KUDASOV, G.F., kand. tekhn. nauk, red.; VAKSER, D.B., dots., retsenzent; GLYASS, V.D., inzh., red.; VARKOVETSKAYA, A.I., red. izd-va; KONTOROVICH, A.I., tekhn. red.

[Profile grinding] Profil'noe shlifovanie. Pod obshchei red. G.F.Kudasova. Moskva, Mashgiz, 1960. 116 p. (Bibliotekha shlifovshchika, no.6) (MIRA 14:12)
(Grinding and polishing)

ANSEROV, Mikhail Alekseyevich, dotsent, kand.tekhn.nauk; AZAROV, A.S.,
kand.tekhn.nauk, retsenzent; YAKSER, D.B., dotsent, red.;
CHPAS, M.A., red.izd-va; SHCHETININA, L.V., tekhn.red.

[Attachments for machine tools; design and construction]
Prisposobleniia dlia metalloreshushchikh stankov; raschety
i konstruktsii. Moskva, Gos.nauchno-tekhn.izd-vo mashino-
stroit.lit-ry, 1960. 623 p. (MIRA 14:2)
(Machine tools--Attachments)

S/123/61/000/014/026/045
A004/A101

AUTHOR: Vakser, D.B.

TITLE: Investigating the grinding process with the aid of high-speed motion picture photography

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 14, 1961, 71, abstract 14B488 ("Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t", 1960, no. 2, 90 - 95)

TEXT: The author gives an account of the results of investigating surface grinding operations by the wheel periphery with the aid of high-speed motion picture photography. Grinding is carried out at a wheel speed of 1.63 m/sec and depth of cut of 0.01 - 0.2 mm with wheels of different characteristics. Cinematography made it possible to watch the wheel wear, changes of its profile during the grinding process, the breaking-loose of individual grains, renewal of the cutting part of the wheel as a result of new grains getting into action. The process of chip-forming by individual abrasive grains during grinding and the grain wear process were studied with the aid of motion picture photography. It was found

Card 1/2

S/123/61/000/014/026/045
A004/A101

Investigating the grinding process ...

that the chip-forming process can be broken down into 3 stages. During the first stage an elastic deformation of the metal in the contact zone between grain and part being machined takes place, during the second stage plastic crumbling takes place, while during the third stage the deformed metal begins to glide over the front edge of the abrasive grain and separates in chip form. There are 5 figures. ✓

I. Brozgol'

[Abstracter's note: Complete translation]

Card 2/2

VAKSER, David Borisovich; KUDASOV, G.F., kand. tekhn. nauk, red.; LIVSHITS, B.I., kand. tekhn. nauk, retsenzent; MIRKIN, M.S., inzh., red.; BO-
RODULINA, I.A., red. izd-va; NIKOLAYEVA, I.D., tekhn. red.

[Internal grinding] Vnutrennee shlifovanie. Pod obshchei red. G.F. Kudasova. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 64 p. (Bibliotekha shlifovshchika, no.3) (MIRA 14:8)
(Grinding and polishing)

VAKSER, D.B., dotsent, red.; SHILLING, V.A., red. izd-va; BELOGUROVA, I.A.,
tekh. red.

[Practice in making and using diamond cutting tools] Opyt izgotovle-
niia i primeneniia almaznogo instrumenta. Leningrad, Leningr. Dom
nauchno-tekh. propagandy, 1961. 67 p. (MIRA 14:7)
(Metal-cutting tools) (Diamonds, Industrial)

BELYAYEV, Georgiy Sergeyevich; TABACHNIKOV, Petr Isayevich; PODPORKIN, V.G., doktor tekhn. nauk, retsenzent; ANSEROV, M.A., kand. tekhn. nauk, red.; VAKSER, D.B., kand. tekhn. nauk, red. KUREPINA, G.N., red. izd-va; CHIFAS, M.A., red. izd-va; SHCHETININA, L.V., tekhn. red.

[Technological processes in the manufacture of shafts] Tekhnologiya proizvodstva valov. Moskva, Mashgiz, 1961. 250 p.

(MIRA 15:2)

(Shafting)

KULIKOV, Vladimir Vasil'yevich; VAKSER, D.B., red.; FREGER, D.P.,
red. izd-va; BOL'SHAKOV, V.A., tekhn. red.

[Mechanical processing of thermosetting plastics; verbatim
report of a lecture] Mekhanicheskaya obrabotka termoreaktiv-
nykh plasticheskikh mass; stenogramma lektsii. Leningrad,
1962. 22 p. (MIRA 15:3)

(Thermoplastics)

PISAREVSKIY, Moisey Isaakovich, kand. tekhn. nauk; SHNEYDER, Yu.O.,
kand. tekhn. nauk, retsenzent; VAKSER, D.B., dots., red.;
VARKOVETSKAYA, A.I., red. zd-va; BARDINA, A.A., tekhn. red.

[Rolling precision threads and slots] Nakatyvanie tochnykh
rez'b i shlitsev. Moskva, Mashgiz, 1963. 175 p.
(MIRA 16:7)

(Screw-thread rolling)

LIVSHITS, B.I., kand. tekhn. nauk; DRUZHINSKIY, I.A., kand. tekhn.
nauk, retsenzent; VAKSER, D.B., kand. tekhn. nauk, red.;
CHFAS, M.A., red.izd-va; PETERSON, M.M., tekhn. red.;
BARDINA, A.A., tekhn. red.

[Technological processes of the manufacture and assembly of
cam mechanisms] Tekhnologiya izgotovleniya i sborki kulach-
kovykh mekhanizmov. Moskva, Mashgiz, 1963. 169 p.
(MIRA 16:10)

(Cams) (Metal cutting)

KOSHUROV, B.V., kand. tekhn. nauk; PAVLYUCHUK, A.I.; TAYTS, Ye.I.;
FEDOTOV, A.I.; VAKSER, D.B., red.; FREGER, D.P., red. izd-
va; BELOGUROVA, I.A., tekhn. red.

[Use of diamond tools in the manufacture of machinery] Pri-
menenie almaznogo instrumenta v mashinostroenii; stenogramma
lektsii. Leningrad, Leningr. dom nauchno-tekhn. propagandy,
1963. 30 p. (MIRA 16:7)

(Diamonds, Industrial) (Metal cutting)

VOSTRODOVSKIY, A.V. [deceased]; BRUK, S.I.; LIVSHITS, B.I.; MIRKIN, M.S.; ROZENFEL'D, M.A.; SIMIN, S.Kh.; TREBNIK, Ya.L.; GARBARUK, V.N., kand. tekhn.nauk, retsenzent; VAKSER, D.B., dots., red.; VARKOVETSKAYA, A.I., red.izd-va; SHCHETININA, L.V., tekhn. red.

[Technology of the manufacture of knitting machines] Tekhnologiya trikotazhnogo mashinostroeniia. [By] A.V.Vostrodovskii
1 dr. Moskva, Mashgiz, 1963. 266 p. (MIRA 16:8)
(Knitting machines)

VAKHID, I.B.; VULF, A.M., doktor tekhn. nauk, retsenent; MIRKIN,
I.S., inzh., red.

[Means for increasing the efficiency of abrasive tools in
grinding] Puti povysheniia proizvoditel'nosti abraziynogo
instrumenta pri shlifovanii. Moskva, Mashinostroenie,
1964. 121 p. (MIRA 17:8)

VAKSER, E.B.

VAKSER, E.B.--"Use of an Inverted Arrangement of Vacuum Tubes for Electric Measuring Purpose."*(Dissertations For Degrees In Science And Engineering At USSR, Higher Educational Institutions). (34). Min Higher Education USSR, Belorussian Polytechnic Inst imeni I.V. Stalin, Minsk, 1955.

SO: Knizhnaya Letopis', No. 34, 1955 (August 20)

* For the Degree of Doctor of Technical Sciences

VAKSER, Elezar Borisovich; KUZ'MICHENKO, G.A., red.; KISLYAKOVA,
M.N., tekhn. red.

[Electronic d.c. voltmeters] Elektronnye vol'tmetry postoiannogo toka. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1963. 193 p.

(MIRA 16:10)

(Voltmeter)

VAKSER, I.I.; STUBAYLO, G.D.; CHISTOVA, V.A.; KRYUCHKOV, G.R.,
dots., nauchnyy red.; KUNTSEVICH, S., otv. za vypusk;
STERZHANOV, P., tekhn. red.

[Public health in the White Russian S.S.R. for forty years
(1919-1958); an index to the literature] Zdravookhranenie
Belurusskoi SSR za sorok let, 1919-1958; ukazatel' litera-
tury. Minsk, 1961. 500 p. (MIRA 16:7)

1. Minsk. Respublikanskaya gosudarstvennaya nauchnaya
meditsinskaya biblioteka.

(WHITE RUSSIA—PUBLIC HEALTH—BIBLIOGRAPHY)
(BIBLIOGRAPHY—WHITE RUSSIA—PUBLIC HEALTH)

USSR/Electricity - Faults, Location of Oct 51
Pulse Method

"The Pulse Method for Determining Faults in Cables," A. Ya. Usikov, Cand Phys Math Sci, I. Kh. Vaksar, Engr, Physicotech Inst, Acad Sci Ukrainian SSR

"Elektrichestvo" No 10, pp 20-24

Describes a pulse instrument for detg the fault point in power cables. The instrument is effective over a distance of about 500 m, with an error of 4-5 m. Tabulates results obtained in the Kharkov Streetcar and Trolley Bus Adm in 201T38

USSR/Electricity - Faults, Location of Oct 51
(Contd)

using the instrument to find faults in SB-1,000 cables. States that amplification of the reflected signals would permit detn of hf coaxial cables in cables, particularly in hf coaxial cables. Submitted 17 Jan 51.

VAKSER, I. Kh.

201T38

30330

S/185/61/006/005/006/019
D274/D303

3.5/33
9.9822

AUTHORS: Usikov, O.Ya., Herman, V.L., and Vakser, I.Kh.

TITLE: Study of absorption and scattering of millimeter waves by precipitations. I, II

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 5, 1961, 618 - 640

TEXT: Experimental results are given on the attenuation of millimeter (8.15 to 2.7) radiowaves by rain, as well as basic theoretical results concerning absorption and scattering of such waves by precipitations. In the theoretical investigation, one has to proceed from a rigorous solution of the pertinent electrodynamical equations, taking into account the dispersion of the complex dielectric constant of water in the millimeter range. If the values for the absorption and the effective scattering cross-section for the individual particles are known, as well as the distribution function (of drop-size), then the total absorption and scattering can be found for precipitations with particles of similar or dis-

Card 1/7

Study of absorption and scattering ...

30330
S/185/61/006/005/006/019
D274/D303

similar size. The change in wave-intensity as a function of distance, due to absorption and scattering by precipitations, is expressed by

$$I = I_0 e^{-x \sum_i N_i Q^n(D_i, \lambda)}$$

where N_i - the number of particles with diameter D_i per unit volume, Q - the effective cross-section of attenuation. The attenuation due to rain, expressed in decibels per kilometer, is

$$\gamma = 0.434 \sum_i N_i \left(\frac{1}{\text{cm}^3} \right) Q^n [D_i (\text{cm}), \lambda (\text{cm})]. \quad (1)$$

The experimental investigation proceeded from Eq. (1). As inaccurate determination of N_i may be a chief source of errors, special attention was given to the structure and distribution of rain drops. The method adopted, ensured greater accuracy of measurements over a short track. The field studies were carried out (in 1951-1952) in the neighborhood of Batum, a region with very frequent

Card 2/7

30330

S/185/61/006/005/006/019
D274/D303

Study of absorption and scattering ...

precipitations (and of varying intensity). Experimental data on the drop-size distribution were obtained by the well-known method of fixation by means of filter paper. A comparison of samples showed that the size-distribution differs greatly and therefore, the attenuation cannot be uniquely determined from the intensity of the waves. At the same time, data were collected on the distribution of particles according to N_1 needed for a comparison of theoretical and experimental values. A figure shows the experimental setup used for attenuation measurements. A klystron was used as a generator. High-frequency elements - waveguides, wave-detectors, etc., were developed to meet the requirement of detecting slight signal-variations. The setup could be used in two ways for detecting wave-attenuation: Either by measuring the signal after it traversed the track once, or after a double passage. The second method involves the reflection of the signal and is more reliable, in particular with light rain. An absorption track of 50-100 m was used; hence, the sensitivity of the setup had to be very high (so as to measure variations of the order of a hundredth part of a decibel). Such a degree of sensitivity was obtained by compen-

Card 3/7

- 30330

S/185/61/006/005/006/019

D274/D303

Study of absorption and scattering ...

sation of the measured signals. A figure shows a diagram of a bridge circuit with two detectors which work by the method of the reflected signal. The rain intensity was measured by means of rain-drop meters. The principal measuring device was a waveguide attenuator, used for checking the sensitivity and for graduating the indicator scale of the bridge circuit. About 2000 measurements of attenuation were taken. The above setup was used for a wavelength $\lambda = 8.15$ mm. For the other wavelengths, the set~~up~~ was slightly modified. Thus, in the case of $\lambda = 6.8$ mm, a magnetron was used as a generator. Figures show plots of absorption versus rain-intensity for the various wavelengths. The theoretical investigation of attenuation, due to atmospherical inhomogeneities, is considerably simplified if the size of the particles is considerably smaller than the wavelength, i.e. $D/\lambda \ll 1$. This inequality holds (in the millimeter range) for storms, clouds, industrial smoke, etc. Hence the problem can be solved in the Rayleigh approximation, i.e. the solution of the wave equation is obtained by solving the Laplace equation. The generalized Rayleigh formula for attenuation is

Card 4/7

30330

S/185/61/006/005/006/019
D274/D303

Study of absorption and scattering ...

$$\gamma_I = 0.434 \frac{\pi D^2}{4} \sigma_1, \quad (3)$$

where

$$\sigma_1 = 2\rho c_1 \left(1 + \frac{c_2}{c_1} \rho^2 + \frac{c_3}{c_1} \rho^3 + \dots \right);$$

for radar reflections:

$$\gamma_{II} = 0.434 \frac{\pi D^2}{4} \sigma_2, \quad (4)$$

where

$$\sigma_2 = A_1 \rho^4 \left(1 + \frac{A_2}{A_1} \rho^2 + \frac{A_3}{A_1} \rho^3 + \dots \right).$$

The coefficients of these equations are listed in tables. The difficulties in obtaining exact solutions for these equations can be overcome by means of recursion formulas, (for the coefficients a_n and b_n which enter the expressions for the absorption cross-section Q^I and scattering cross-section Q^{II}). Tables list the values

Card 5/7

30330

S/185/61/006/005/006/019
D274/D303

Study of absorption and scattering ...

for Q^I and Q^{II} . In the general case

$$\gamma' = \sum_i N_i \left(\frac{1}{cm^3} \right) Q_i'(cm^2) 10^8 \frac{\partial \delta}{\kappa \kappa} \quad (5)$$

and

$$\gamma'' = \sum_i N_i \left(\frac{1}{cm^3} \right) Q_i''(cm^2) \cdot 10^8 \frac{\partial \delta}{\kappa \kappa} \quad (6)$$

From the tabulated values for Q^I , Q^{II} , and the experimentally obtained values of N_i , it is possible to determine the attenuation and the scattering by means of formulas (5) and (6). For N_i , one obtains

$$N_i = \frac{q_i}{v_i s t} = \frac{q_i I \left(\frac{\mu \mu}{200} \right)}{6 \pi v_i \sum_i q_i D_i^2 (\mu \mu)} \quad (8)$$

By virtue of Eq. (5) and (8), one obtains

$$\gamma' = \sum_i 10^8 N_i \left(\frac{1}{cm^3} \right) Q_i'(cm^2) = \frac{I \left(\frac{\mu \mu}{200} \right) \sum_i \frac{q_i Q_i'}{v_i}}{6 \pi \sum_i q_i D_i^2 (\mu \mu)} \cdot 10^8. \quad (9)$$

Card 6/7

30330

S/185/61/006/005/006/019
D274/D303

Study of absorption and scattering ...

If the rain drops are of the same size, then

$$\gamma_D = \frac{I\left(\frac{MM}{200}\right) Q'(D, \lambda)}{6\pi v(\bar{D}) \bar{D}^3 (MM)} \quad (10)$$

Hence, the attenuation and the radar reflection of millimeter waves do not depend on rain intensity only, but also on the drop-size distribution. Four numerical examples are given which show that the values calculated by formulas (5) and (9) give a true picture of absorption and scattering of millimeter waves by precipitations over the entire millimeter-range. There are 5 figures, 29 tables and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: Van Vleck, Phys. Rev. 71, 413, 1947; 71, 425, 1947; Langmuir, Journ. of Meteor., 5, 175, 1948.

ASSOCIATION: Instytut radiofizyky ta elektroniky AN URSR m. Kharkiv (Institute of Radiophysics and Electronics, AS UkrSSR, Kharkiv)

SUBMITTED: January 7, 1961
Card 7/7

VAKSER, I.Kh. (Khar'kov); USIKOV, A.Ya. [Usykov, O.IA.] (Khar'kov)

Use of radar techniques in the automation of the operation of
electric railroads. Avtomatyka 9 no.5:75-79 '64. (MIRA 18:2)

BRZHEZANSKIY, V.I., inzh.; VAKSER, N.M., inzh.; PETROVA, K.N., inzh.;
TOLVINSKAYA, A.V., kand.tekhn.nauk

Dependence of the electrical properties of mica plastics on the
initial raw materials. Vest. elektroprom. 34 no.5:9-11 My '66.
(MIRA 16:5)

(Mica--Electric properties) (Plastics--Electric properties)

S/143/62/000/003/004/007
5233/5302

AUTHORS: Vakser, N. M., Engineer, Wu Shun-Chin and Tolvinskaya,
A. V., Candidate of Technical Sciences, Docent

TITLE: A method for measuring the loss angle and specific inductive capacitance of micaceous materials at high temperatures

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika,
5. no. 3, 1962, 24-27

TEXT: Electrodes for testing micaceous materials up to 500°C must offer a low resistance perpendicular and parallel to the surface of the dielectric, must provide good contact with single application to the surface of the specimen and must serve at high temperatures. The conditions are satisfied in different degrees by metallic electrodes comprising solid electrodes, foil electrodes, metal coatings on the surface of the dielectric and mercury electrodes. The apparatus described employs a heating coil wound on to a ceramic

Card 1/2

A method for measuring ...

S/143/62/000/003/004/007
D238/D302

vessel. Silver-coated ceramic electrodes reach the specimen from below and above the vessel. The special screening of the heating vessel yields a lower loss angle than the normal heating devices. A figure shows $\tan \delta$ curves as measured in the normal heating rig, employing copper electrodes and as measured in the special rig employing metallized ceramic electrodes. There are 2 figures and 1 table. ✓

ASSOCIATION: Leningradskiy politekhnicheskii institut imeni M. I. Kalinina (Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: April 7, 1961

Card 2/2

L 04161-67 EWP(e)/EWT(m) WH

ACC NR: AP6023674

SOURCE CODE: UR/0143/66/000/004/0025/0029

AUTHOR: Brzhezanskiy, V. I. (Engineer); Vakser, N. M. (Engineer); Tolvinskaya, A. V. (Engineer) 32

ORG: Leningrad Polytechnic Institute im. M. I. Kalinin (Leningradskiy politekhnicheskii institut) 15

TITLE: Comparison of the properties of sheet mica made from muscovite, phlogopite, and vermiculite

SOURCE: IVUZ. Energetika, no. 4, 1966, 25-29

TOPIC TAGS: mica, dielectric property

ABSTRACT: All mica test samples were prepared with the same binder, that is, with Type K-47 organosilicon lacquer, used in the amount of 4% with respect to the dry sample. All the samples were baked under the same conditions: 300°C, pressure 40 kg/cm², for 5 hours. Measurements of the tangent of the dielectric losses and dielectric permeability were made at a frequency of 1 kilocycle. The results of the tests are shown in a series of curves. The best electrical properties and the least dependence of these properties on temperature were found for sheet mica made from muscovite; on heating this sheet mica from 22 to 600°C, the

Card 1/2

UDC: 621.315.613.1

L 04161-67

ACC NR: AP6023674

tangent of the dielectric losses rose from 0.017 to 0.11; the specific volumetric resistance decreased from 5.8×10^{13} to 7.8×10^{11} ohm-cm; the dielectric permeability rose from 3.4 to 3.7; the electric strength decreased from 27 kilovolts/mm to 22 kilovolts/mm. In sheet mica made from phlogopite, values of the properties of the same order were observed at a temperature of 350°C , as compared with 600°C for the sheet mica made of muscovite. Thus, sheet mica made of muscovite with K-47 lacquer can be used up to 500°C , if at this temperature there is required an electrical strength of the order of 20 kilovolts/mm. Above 500°C , water of crystallization begins to separate out, which leads to a change in the properties of this sheet mica at higher temperatures. Sheet mica made of phlogopite can be used up to 350°C ; above this temperature, there is a sharp rise in the tangent of the dielectric losses. Sheet mica made of vermiculite can be used only up to 250°C , for the same reason. In general, the muscovite sheet mica is considered the best for most applications. Orig. art. has: 6 figures.

SUB CODE: 08 / SUBM DATE: 04Dec64/ ORIG REF: 001

Card

2/2 *LLH*

ACC NR: AT6022764 (A) SOURCE CODE: UR/2563/65/000/258/0138/0141

AUTHOR: Brzhezanskiy, V. I.; Vakser, N. M.; Tolvinskaya, A. V.

ORG: none

TITLE: Mica plastics

SOURCE: Leningrad. Politekhnikheskiy institut. Trudy, no. 258, 1965.
Vysokovol'tnaya izolyatsiya liniy i apparatov (High voltage insulation of lines and apparatus), 138-141

TOPIC TAGS: mica product , mica plastic , mica

ABSTRACT: The mica plastic consists of small phlogopite flakes bonded by aluminum phosphate (Soviet trademark AF-2,5) or silicone. Developed by the Department of Electric Insulation, Cables, and Capacitors, LPI, the new material is intended as insulation operating at 350-400C in electrical equipment. Within 25-400C, the mica plastic has $\text{tg}\delta$ from about 0.04 to about 0.25 and ϵ about 6 or 7 measured at 1000 cps. Although good electrical characteristics were ensured

Card 1/2

ACC NR: AT6022764

with the binder content as low as 1%, in practice over 3% binder was used to add high mechanical strength to the material. Curves of $\tan \delta$, ϵ , and resistivity vs. temperature for five different compositions of the mica plastic are shown. Data on a mica plastic with an organic binder (working temperature up to 150C) is also given. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11, 09 / SUBM DATE: none / ORIG REF: 002

Card 2/2

VAKSHUL', N.I.; MIKSON, F.S.; OSITKOVSKIY, V.N.; YASHEK, L.N.

Chill casting of hydraulic equipment parts. Lit.proizv. no.10:32-34
0 '64. (MIRA 12:14)

VAESLEYGER, G. A.

Effect of stimulation of the vagus nerves in vagotomized dogs.
Tr. Vsesoiuz. obsh. fiziol. no. 1:87 1952. (GML 24:1)

1. Delivered 12 June 1946, Kuybyshev.

VAKSLINYGER, G.A.

Effect of the vagus nerve on respiration in animals following decortication. Trudy Vses.ob-va fiziol.biokhim. i farm. 2:130-133 '54. (MLHA 8:7)

1. Kafedra normal'noy fiziologii Kuybyshevskogo gosudarstvennogo meditsinskogo instituta.

(CEREBRAL CORTEX, physiology,

eff. of vagus nerve stimulation on resp. in decorticated animals)

(NERVES, VAGUS, physiology,

eff. of stimulation on resp. after cerebral decortication in animals)

(RESPIRATION, physiology,

eff. of vagus nerve stimulation after cerebral decortication in animals)

VAKSLEYGER, G. A.

VAKSLEYGER, G. A. -- "The Effect of Stimulation of the Vagus Nerve on Respiratory Movements in Mammals." Kuybyshev State Medical Inst. Chari of Normal Physiology. Kuybyshev, 1955. (Dissertation for the Degree of Doctor in Medical Sciences).

So.: Knizhnaya Letopis', No. 6, 1956.

Name: VAKSLEYGER, Grigoriy Abramovich

Dissertation: On the Influence of Stimulations of
the vagus Nerve upon the Respiratory
Motility of Mammals

Degree: Doc Med Sci

Affiliation: [Not indicated]

Defense Date, Place: 10 Feb 56, Council of Kuybyshev State
Med Inst

Certification Date: 27 Oct 56

Source: B4V0 6/57

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858410020-2

VAKSLEYGER G.A

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858410020-2"

VAKSLEYGER, G.A.

COUNTRY : USSR
 CATEGORY : Pharmacology and Toxicology. Analoptics
 ABS. JOUR. : RehBiol., No. 5 1959, No. 23053
 AUTHOR : Vaksleyger, G.A.; Bogatyreva, V.I.; Nasledkov, V.N.
 INST. :
 TITLE : Influence of Caffoine and Bromine upon Reflex
 Excitability of the Respiration Center
 ORIG. PUB. : Fiziol. zh. SSSR, 1958, 44, No 5, 433-437
 ABSTRACT : Changes of excitability of the respiration center (RC) under the influence of small and medium doses of caffoine (C) introduced subcutaneously was studied on dogs with a weak and strong type of nervous system. Reflex excitability of RC was determined by means of tetanizing irritation of the vagus nerve. Under the influence of C, reflex excitability of RC invariably increased; at the same time, for dogs of weak nervous type a smaller dose was needed for this purpose than

Card: 1/3

COUNTRY :
CATEGORY :

V

ABS. JOUR. : RZhBiol., No. 5 1959, No. 23053

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : for dogs of the strong type. A summation of the
cont'd action of C after introduction of its repeated
doses was observed, which was expressed in the
gradual increase of the excitability of RC. The
changes in respiration occurring as a result of
the introduction of C are explained by its direct
action on RC since this action was also observed
in dogs deprived of the cerebral cortex. The ac-

Card:

2/3

COUNTRY :	
CATEGORY :	V
ABS. JOUR. :	RZhBiol., No. 5 1959, No. 23053
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd :	tion of bromine salts (BS), which were introduced perorally with water or milk, is more diversified as compared with the effect of C. Not infrequently, small single doses of BS produced a temporary increase of the excitability of RC, while the repeated administration of medium doses of BS during several days produced a decrease of the excitability of RC. However, in animals deprived of the cerebral cortex, BS did not inhibit the reflex excitability of RC.-- Z. D. Dukhanina
Card:	3/3

ALEKSEYEVA, A.N.; VAKSLEYGER, G.A.

Origin of periodic respiration. Trudy Oren. otd. Vses.
fiziol. ob-va no.2:12-19'60. (MIRA 16:2)

1. Kafedra zoologii, anatomii i fiziologii cheloveka Oren-
burgskogo pedagogicheskogo instituta i kafedra normal'noy
fiziologii (zav. - prof. G.A.Vaksleyger) Orenburgskogo
meditsinskogo instituta.

(RESPIRATION)

VAKSLEYGER, G.A.

Effect of increased carbon dioxide content in the inspired
air on changes in the reflex excitability of the respiratory
center. Trudy Oren. otd. Vses. fiziol. ob-va no. 2:34-42 '60
(MIRA 16:8)

1. Kafedra normal'noy fiziologii (zav. - prof. G.A.Vaksleyger)
Orenburgskogo meditsinskogo instituta.

(CARBON DIOXIDE—PHYSIOLOGICAL EFFECT)
(RESPIRATION)

ACCESSION NR: AP4020916

S/0239/64/050/003/0280/0287

AUTHOR: Vaksleyger, G. A.; Yeremenko, L. F.

TITLE: Changes in respiration and in reflex excitability of the respiratory center during oxygen inspiration

SOURCE: Fiziologicheskii zhurnal SSSR, v. 50, no. 3, 1964, 280-287

TOPIC TAGS: oxygen effect, oxygen inspiration, respiration frequency, respiration depth, respiratory center reflex excitability, chloral hydrate administration, chlorpromazine administration, cortex activity, motor activity

ABSTRACT: In a series of three experiments on dogs, the effect of oxygen on respiration was investigated under normal conditions, after chloral hydrate administration, and after chlorpromazine administration. Animals were placed in a 175 l closed chamber (ventilated from 45 to 172 l/min) with temperature and air pressure kept at a constant level. Gas composition of air inside the chamber was analyzed periodically with a Holden gas analyzer. Reflex excitability of the respiratory center was determined by electric stimulation of the

Card 1/3

ACCESSION NR: AP4020916

vagus nerve with an ASM-2 unit (80 stimuli/sec; stimulus duration 3 msec). Stimuli were applied from 4 to 10 sec and stimulus threshold was based on minimum coughing effect expressed in milliamperes. After the threshold was established, oxygen was introduced into the chamber and then the chamber was hermetically sealed. Carbon monoxide was absorbed by soda lime. Pneumograms recorded respiratory movements. Findings show that under normal conditions the effect of oxygen on respiration is characterized by two phases. In the first phase (2 to 8 min) respiratory reactions are slightly depressed and in the second phase external respiration is restored to its initial level. Reflex excitability of the respiratory center does not decrease in the first or second phase. With chloral hydrate administration, respiration frequency is reduced and respiration depth is weakened, but they are almost restored to normal after oxygen is introduced. Reflex excitability of the respiration center decreases 1 to 1½ hours after chloral hydrate administration in all cases and remains depressed after oxygen is introduced. With chlorpromazine administration, respiration frequency, depth, and rhythm are slightly depressed. Oxygen helps to restore respiration depth but does not affect respiration frequency.

Card 2/3

ACCESSION NR: AP4020916

With chlorpromazine administration, reflex excitability of the respiration center does not change before or after oxygen is introduced. Both chloryl hydrate and chlorpromazine lower cortex activity and inhibit motor activity, but chlorpromazine differs from other narcotics in that it does not affect reflex excitability of the respiratory center, and this may be of value in certain types of experiments. The normalizing and strengthening direct effect of oxygen on the central nervous system cells is more apparent under conditions of preliminary weakening of cell activity as in the case of chloryl hydrate and chlorpromazine administration. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Kafedra normal'noy fiziologii meditsinskogo instituta, Orenburg (Normal Physiology Department of the Medical Institute)

SUBMITTED: 13Mar63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: LS

NR REF SOV: 011

OTHER: 016

Card 3/3

VAKSLEYGER, G.A.

Some problems of respiratory physiology in I.M.Sechenov's
works. Fiziol.zhur. 51 no.11:1377-1380 N '65.

(MIRA 18:11)

1. Kafedra normal'noy fiziologii Meditsinskogo instituta.
Orenburg.

VAKSLYUK, P.M., kand. med. nauk

Splonomegalic liver cirrhosis in twins. Vrach. delo no.1:
149-151 Ja'64 (MIRA 17:3)

1. Kafedra propedevticheskoy terapii (zav. - dotsent N.P.
Kravets) Ivano-Frankovskogo meditsinskogo instituta.

SOV/65-58-8-12/14

AUTHORS: Igcnin, P. G; Vaksman, A. A. and Desyatova, I. D.

TITLE: The Coking of Petroleum Pitch in Industrial Dinas Kilns.
(Koksovaniye neftyanogo peka v promyshlennyykh dinasovykh pechakh).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.8.
pp. 59 - 64. (USSR). 3 -

ABSTRACT: When attempting to improve the properties of petroleum coke the latter has to be processed at high temperatures in plants which make it possible to treat repeatedly the coke mass with new portions of raw material. The authors established that ceramic kilns were most satisfactory (Ref.1). After laboratory investigations, carried out in a pilot plant, tests were carried out on an industrial scale in the Zaporozh'ye plant during 1954 - 55. 29% pitch was used as raw material, physical properties of which are given in a table. The coking of this petroleum pitch at 1200°C is characterised by a long cycle (Table 1). Data obtained shows that the length of the coking cycle is smaller the higher the temperature of the preliminary heating of the raw material. The rate of formation of liquid and gaseous coking products in the kilns varies with each charge. Therefore, the equilibrium of materials

Card 1/3